Abstract of the Disclosure

The present invention provides a method for engineering particles for use in the delivery of drugs via inhalation and involves the use of an artificial respiratory airway that simulates a mammalian lung system to create an environment in which particles can be engineered. The method utilizes the inhalation flow rate created within the artificial respiratory airway to optimize the particle attributes, engineered by the method, to create particles that are tailored to the specific inhalation flow rates of different patients.